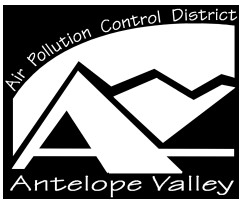


# COMPREHENSIVE EMISSION INVENTORY GUIDELINES

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# COMPREHENSIVE EMISSION INVENTORY GUIDELINES FOR THE ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

## I. BACKGROUND

### A. FEDERAL AND STATE REQUIREMENTS

Several Sections of the Federal Clean Air Act (FCAA) require the maintenance and use of emission inventory data for a variety of purposes. To improve and simplify emission reporting the USEPA has proposed a regulation (*Proposed Consolidated Emissions Reporting Rule*, 65 FR 33268, 5/23/2000).

The California Clean Air Act (CCAA, Health & Safety Code §§39000 et seq.) requires the collection and maintenance of several different emissions inventories. These are: a criteria emission inventory (Health & Safety Code § 39607) and a toxic emission inventory (Health & Safety Code § 44340). In addition, specified sources of air pollutants are required to submit a Toxic Emission Inventory Plan (TEIP) and Toxic Emission Inventory Report (TEIR) (Health & Safety Code §§44341, 44342).

### B. Purpose

This guideline establishes a uniform method for preparing and submitting a Comprehensive Emission Inventory Plan (CEIP) and Comprehensive Emission Inventory Report (CEIR) for all existing, new, or modified stationary sources of air pollution within the Antelope Valley Air Pollution Control District (District). The CEIP and CEIR, which are prepared pursuant to these guidelines, should be able to satisfy all of the Federal, State, and District requirements for air emission inventories.

## II. APPLICABLITY

All existing stationary sources of air pollutants are required to periodically prepare and submit a CEIP and CEIR on a schedule prescribed by the District. All proposed new stationary sources of air pollutants are required to submit a CEIP and CEIR for the proposed new emission unit(s) in conjunction with their application for permit(s) pursuant to the provisions of Districts' Permit and New Source Review Rules and Regulations. Existing stationary facilities or sources of air pollutants are required to submit a CEIP and CEIR for proposed new emission unit(s) and update their current CEIP and CEIR for modifications to existing emission unit(s) pursuant to the provisions of Districts' Permit and New Source Review Rules and Regulations.

## III. DEFINITIONS

For purposes of these Guidelines the definitions contained in District Rules 1401 and 1301 control unless otherwise defined herein.

Existing Stationary Source - Any Facility or Emissions Unit which:

(a) Is required to have a Permit to Operate (PTO) pursuant to the provisions of Districts' Permit Rules and Regulations

(b) Is an Emissions Unit or process type which is listed in Appendix "E" of *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot spots' Program* as adopted by reference in 17 California Code of Regulations §93300.5

(c) Is subject to an Airborne Toxic Control Measure (ATCM)

(d) Is subject to a Maximum Achievable Control Technology (MACT) Standard *[See 42 U.S.C. §7412]*

## IV. PROCEDURE

### A. General Requirements

The comprehensive emission inventory includes the release of all substances (criteria pollutants, their precursors, and toxic substances) emitted into the ambient air. Sources of emissions are anthropogenic and non-anthropogenic sources. Anthropogenic (man-made) sources include stationary sources (point and area), mobile (on and off road), consumer activities, fugitive dust from disturbed land areas, prescribed burns, structural fires, etc. Non-anthropogenic (natural occurrences) sources include wind blown dust, volcanoes, earthquakes, fires, etc.

The CEIP and CEIR are to include all permitted sources (equipment), and un-permitted fugitive sources. Except for pollution control equipment that is attached to other permitted sources. Fugitive sources include, but are not limited to, roadways (paved and unpaved); stockpiles; wind erosion of exposed area; quarry activities (drilling, blasting, material handling, storage, etc.); exhaust from onsite mobile equipment; etc.

Existing stationary sources that emit more than 10 tons per year of a criteria pollutant or their precursors are required to prepare and submit a CEIP and CEIR every four (4) years and update the criteria pollutant emissions annually. Other sources are required to prepare and submit a CEIP and CEIR every four (4) years. Industrywide Sources (retail gasoline facilities, dry cleaners, auto body shop and print shops, etc) are only required to complete and submit a survey form the year they begin operation and on the 'Four Year Cycle' for that Industrywide category.

### 1. Criteria Pollutants

The following criteria pollutants that are to be included in the CEIP and CEIR:

Ammonia – $NH_4$
Carbon Monoxide - CO
Lead and Lead Compounds - Pb
Nitrogen Oxides - $NO_X$
Particulate Matter less than 10 microns – $PM_{10}$
Particulate Matter less than 2.5 microns – $PM_{2.5}$
Reactive Organic Gases - ROG
Sulfur Oxides - $SO_X$
Total Organic Gases - TOG
Total Suspended Particulates - TSP
Volatile Organic Compounds – VOC

### 2. Toxic Substances

The toxic substances which are to be included in the CEIP and CEIR are listed in the following:

(a) Appendix 'A', *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot spots' Program* (CARB); consisting of;

1. Appendix A-I Substances for which emissions must be quantified,

2. Appendix A-II Substances for which production, use or otherwise present must be reported,

3. Appendix A-III Substances for which emission must be quantified if manufactured by the facility, and

(b) 42 U.S.C. § 7412(b) "List of Pollutants (Federal Clean Air Act §112(b) "List of Pollutants").

Copies of these lists are available at the CARB and/or USEPA websites (See "References") or upon request from the District.

## B. Preparing the Comprehensive Emission Inventory Plan (CEIP)

The CEIP is a plan on how the CEIR will be prepared. The CEIP must be on District forms ('FAC', 'FIN', 'DFD', and 'EQM') or forms approved by the District. Preparation of the CEIP shall be performed pursuant to the procedure found in the most recent *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot Spots' Program* as adopted by CARB. Copies of the District Forms are in Appendix "A". Sample of completed forms 'DFD' and 'EQM' are in as Appendix "B". Copies of the CARB documents are available at the CARB website (See "References") or from the District upon request.

## C. Preparing the Comprehensive Emission Inventory Report (CEIR)

The CEIR shall be prepared in accordance with the procedures found in the following:

1. *Emission Inventory Procedural Manual Volume I – Inventory Development Process;* and
2. *Emission Inventory Criteria and Guidelines for the Air Toxics 'Hot Spots' Program.*

The CEIR shall be in format that can be 'Imported' into the CEIDARS-Lite computer program. District forms 'FAC' and 'FIN' must be included with each CEIR submittal. Copies of the above referenced documents and the CEIDARS-Lite program may be obtained at the CARB website (See "References") or from the District upon request.

# V. SCHEDULE

## A. General

All existing stationary sources of air pollutants are required to submit CEIP and CEIR upon a schedule established by the District. This schedule is determined by the facility type based on the applicable SIC code and is set forth in the Four Year Cycle provisions below. Please note that a new or updated CEIP and CEIR will be required for new or modified Facilities or Emission Units in conjunction with the application for construction or modification. Such new or updated CEIP/CEIR will not exempt a Facility from submitting its next regularly scheduled submission under the Four Year Cycle.

### 1. Application CEIP/CEIR Submissions

New or modified Facilities or Emissions Units are required to submit a CEIP and CEIR with the application for construction or modification. For existing Facilities with a current CEIP and CEIR, which has been approved by and is on file with the District, the application submission may be in the form of an update. Such update shall be prepared in the same manner, using the same CEIP and only needs to include the emissions (or proposed emissions) from any new, or modified Emission Units. The CEIR will also need to indicate which, if any, existing Emissions Units have or will be removed from service or which have modified emissions. Industrywide Sources (retail gasoline facilities, dry cleaners, auto body shop and print shops, etc.) are only required to complete and submit a survey form at the time of application. The District reserves the right, upon written notice to the applicant, to require a complete CEIP and CEIR submission with any application.

### 2. Four Year Update

Existing Facilities that emit more than 10 tons per year of a critical pollutant or their precursors are required to submit a criteria pollutant update to the CEIP/CEIR on an annual basis. All of these existing facilities are also required to submit the Toxic Air Pollutant portion of the CEIP/CEIR every four (4) years pursuant to the schedule set forth below. In some cases Facilities may be allowed to submit updates, as opposed to full CEIP/CEIR submissions industry wide sources will only be required to submit survey forms in the indicated years.

New or modified Facilities or Emissions Units may be required to submit an additional CEIP and CEIR in a time period of less than four years from the date of their application if they belong to a source category which is required to submit a CEIP and CEIR in a particular year. For example: a Landfill submits an application for modification with a CEIP and CEIR in 2001. Such a landfill would be required to submit another CEIP and CEIR in 2003 and every four years thereafter.

| GROUP | FACILITY TYPE | SIC |
|---|---|---|
| I - 1999, 2003, 2007, 2011 etc. | | |
| | Transportation | 37xx |
| | Cement Plants | 3241 |
| | Metal Mining | 10xx |
| | Nonmetallic Mining | 14xx |
| | Auto Body Shops (IW) * | 55xx, 75xx, 3341, etc. |
| | Dry Cleaners (IW) * | 721x |
| | Landfills | 4952 |
| II - 2000, 2004, 2008, 2012 etc. | | |
| | National Security | 9711 |
| | Glass Plants: | 3211 |
| | Wood Coaters | 24xx & 25xx |
| | Printers (IW) * | 27xx |
| | Concrete Plants | 327x & 1771 |
| | Prisons | 92xx |
| | Governmental | 91xx & 96xx |
| | Degreasers | All |
| | Composite Fibers | 30xx & 3732 (fiberglass) |
| | Asphalt Plants | 2951 |
| III - 2001, 2005, 2009 2013 etc. | | |
| | Pipelines | 46xx, 492x, & 4941 |
| | Power Plants | 491x & 4339 |
| | Irrigation Systems | 4971 |
| | Waste Water Treatment | 4952 |
| | Hospitals | 80xx |
| | Crematories | 7261 |
| | Agriculture | 35xx |

IV - 2002, 2006, 2010 2014 etc.

| | |
|---|---|
| Chemical Plants | 28xx |
| Mineral Plants | 3295 |
| Railroads | 4013 |
| Metal Fabricators | 344x |
| Electrical Equip | 36xx |
| Miscellaneous Mfg. | 39xx |
| Bulk Plants | 5171 |
| Fuel Dispensing (IW) * | 5541 & 4581 |
| All Others | All other |

* (IW) = Industrywide Facility Group

## Annual Time Table for Submissions

The following is the standard schedule for submission of Questionnaires, CEIP and CEIR documents to the District. However, the District reserves the right to require submission of Questionnaires, CEIP and CEIR documents on a different time schedule to meet the needs of the District. Facilities will be notified in writing if an alternative time schedule for submissions will be used.

| | |
|---|---|
| December 15 | District mails “CEIP & CEIR Update Survey Packets” |
| February 1 | “CEIP & CEIR Update Survey” due to the District. |
| March 1 | District mails “CEIP Packets” |
| June 1 | “CEIP” due to the District |
| July 15 | District mails “CEIR Packets” |
| October 31 | “CEIR” due to the District |

## Previous Inventory Data

The District has copies of the previously submitted emissions inventory data for many facilities in CEIDARS Lite format. Such data is available in electronic format for ‘Importing’ into CEIDAR-Lite or printout (hardcopy) format from the District upon request.

## REFERENCES

Many of the documents referenced in these Guidelines may be found on the Internet. The following listed documents may be downloaded or read at the following locations:

Proposed Consolidated Emissions Reporting Rule (65 FR 33268, 5/23/200)
www.epa.gov/ttn/atw/cerr/cerrpg.html

California Clean Air Act (Health & Safety Code §§39000 et seq.)
www.arb.ca.gov/html/bluebook.htm

AVAPCD Rules & Regulations
www.arb.ca.gov/drdb/av/cur.htm

MDAQMD Rule & Regulations
http://mdaqmd.ca.gov/MD_Rules/TableOfContents.htm

California Air Toxics Program
http://www.arb.ca.gov/toxics/toxics.htm
http://www.arb.ca.gov/toxics/id.htm
http://www.arb.ca.gov/toxics/control.htm
http://www.arb.ca.gov/ab2588/ab2588.htm

Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program
www.arb.ca.gov/ab2588/2588guid.htm

ATCM Standards
www.arb.ca.gov/toxics/atcm.htm

MACT Standards
www.epa.gov/ttn/atw/eparules.html
Table of Completed Regulations or http://www.epa.gov/ttn/atw/mactfnl.html
Table of Proposed Regulations or http://www.epa.gov/ttn/atw/mactprop.html
Table of Upcoming Regulations or http://www.epa.gov/ttn/atw/mactupd.html

List of Pollutants under 42 U.S.C. §7412
www.epa.gov/ttn/atw/188polls.html
www.gpo.gov/congress/cong013.html

Emission Inventory Procedural Manual Volume I – Inventory development Process – email request for copy to eibweb@arb.ca.gov or call (916) 322l-6271.

CEIDARS-Lite
www.arb.ca.gov/ab2588/harp/harp.htm

Emission Inventory Methods

www.arb.ca.gov/emisinv/areasrc/index0.htm

www.epa.gov/ttn/chief/eiip/

Technical Documents http://www.epa.gov/ttn/chief/eiip/techreport/index.html

Point Sources http://www.epa.gov/ttn/chief/eiip/techreport/volume02/index.html

$PM_{2.5}$ Inventory http://www.epa.gov/ttn/chief/eiip/pm25inventory/

http://sg-www.satx.disa.mil/iera/rse/airtool.htm

Emission Inventory Training

http://www.epa.gov/ttn/chief/eidocs/index.html

Emission Factors

CHIEF http://www.epa.gov/ttn/chief/index.html

AP-42 www.epa.gov/ttn/chief/ap42/index.html

California Air Toxic Emission Factors (CATEF) www.arb.ca.gov/emisinv/catef/catef.htm

San Diego APCD http://www.sdapcd.co.san-diego.ca.us/emission/emission.htm

Ventura Co. APCD http://www.vcapcd.org/pubs/Engineering/AirToxics/combem.pdf

South Coast AQMD http://www.aqmd.gov/aer/aer.html

http://www.ecotek.com/aqmd_download_area.htm

USAF http://sg-www.satx.disa.mil/iera/rse/airtool.htm

Standard Industrial Classification (SIC)

http://www.osha.gov/oshstats/sicser.html

Source Classification Code (SCC)

http://www.epa.gov/ttn/chief/codes/index.html#scc

Universal Transverse Mercator (UTM)

Definition http://mac.usgs.gov/mac/isb/pubs/factsheets/fs15799.html

Maps http://www.usgs.gov

http://mapping.usgs.gov/esic/map_dealers/ca.html

Maps/Photos http://mapping.usgs.gov/partners/viewonline.html

http://terraserver.homeadvisor.msn.com/default.asp

# APPENDIXES

**Appendix "A" - Forms**

**Appendix "B" – Source Specific Form**

**Appendix "C" - Sample Forms**

**Appendix "D" – District Default Emissions Factors**

**Appendix "E" – Emissions Inventory Worksheets**

**Appendix "F" – California List of Toxic Substances**

**Appendix "G" - Universal Transverse Mercator (UTM)**

**Appendix "H" – SIC & SCC**

**Appendix "I" – Number of Employees**

**Appendix "J" – CEIDARS-Lite Instructions**

**Appendix "K" - Quality Assurance**

**All forms, worksheets, and lists are available electronically, in Excel format, from the District upon request.**
**rwales@mdaqmd.ca.gov**
**(760) 245-1661 ext. 1803**

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# Appendix "A" - Forms

(Available electronically, in Excel format, from the District upon request)

1. Facility Description (FAC)
2. Facility Information (FIN)
3. Device Flow Diagram & Information (DFD)
4. Emission Quantification Method (EQM)
5. Standard Industrial Classification (SIC)
6. Emission Inventory Check List (CKL) [Form used by District when review a CEIR]

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# Appendix "B" – Source Specific Form

(For facilities that only have this specific emission sources.)
(Available electronically, in Excel format, from the District upon request)

1. Surface Coating Operations
   - A. Coating Operations (CO-OPS) -- (In Word 2000)
   - B. VOC and Solids Calculation Form (VOC & S)
   - C. VOC and Solids Calculation Form Instructions -- (In Word 2000)
2. Gasoline Dispensing Facilities
   - A. Gasoline Dispensing Facility Form (GDF)
   - B. Gasoline Dispensing Facility Instruction
   - C. Gasoline Dispensing Facility Diagram
3. Stationary Fuel Combustion Equipment
   - A. Stationary Fuel Combustion Equipment Side I (SFC)
   - B. Stationary Fuel Combustion Equipment Side II (SFC)

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# Appendix "C" – Sample Forms

(Available electronically, in Excel format, from the District upon request)

1. Paint Spray Booth
   - A. DFD
   - B. EQM for Process #1 - coating used and there emissions
   - C. EQM for Process #2 – natural gas used by incinerator and its emissions
2. Reciprocating Internal Combustion Engine
   - A. DFD
   - B. EQM for Process #1 – Diesel fuel burned and the related emissions
3. Crushing and Screening Operation
   - A. DFD
   - B. Flow Diagram
   - C. EQM
   - D. Emission Worksheet – Particulate Emissions form Aggregate Processing

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# Appendix "D" – District Default Emissions Factors

(Available electronically, in Excel format, from the District upon request)

1. Methods for Determining Emission Factors -- (In Word 2000)
2. Default Emission Factors for Boilers (Draft)
3. Default Emission Factors for Internal Combustion Engines (Draft)
4. Default Emission Factors for Space Heaters (Draft)
5. Default Emission Factors for Gasoline Dispensing

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# Appendix "E" – Emissions Inventory Worksheets

(Only available electronically, in Excel format, from the District upon request)

1. Aggregate Processing
2. Fugitive Emissions from Mines & Quarries (Under development)
3. Gasoline Dispensing Facility
4. Internal Combustion Engines (Under development)
5. Stationary Fuel Burning Equipment (Under revision)
6. Mobile Fuel Burning Equipment (Under revision)

7 Dry Cleaners (Under development)

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# Appendix "F" – California List of Toxic Substances

(Only available electronically, in Excel format, from the District upon request)

1. Appendix A-I Substances for which emissions must be quantified
2. Appendix A-II Substances for which production, use or otherwise present must be reported
3. Appendix A-III Substances for which emission must be quantified if manufactured by the facility

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# Appendix "G" - Universal Transverse Mercator (UTM)

## Definition

The National Imagery and Mapping Agency (NIMA) (formerly the Defense Mapping Agency) adopted a special grid for military use throughout the world called the Universal Transverse Mercator (UTM) grid. In this grid, the world is divided into 60 north-south zones, each covering a strip 6° wide in longitude. These zones are numbered consecutively beginning with Zone 1, between 180° and 174° west longitude, and progressing eastward to Zone 60, between 174° and 180° east longitude. Thus, the contiguous 48 States are covered by 10 zones, from Zone 10 on the west coast through Zone 19 in New England. In each zone, coordinates are measured north and east in meters. (One meter equals 39.37 inches, or slightly more than 1 yard.) The northing values are measured continuously from zero at the Equator, in a northerly direction. Southerly values are similarly measured from the Equator, south. A central meridian through the middle of each 6° zone is assigned an easting value of 500,000 meters. Grid values to the west of this central meridian are less than 500,000 and to the east, are more than 500,000.

Virtually all NIMA-produced topographic maps and many aeronautical charts show the UTM grid lines.

For more detail go to the following website:

http://mac.usgs.gov/mac/isb/pubs/factsheets/fs15799.html

## Maps

Universal Transverse Mercator (UTM) Coordinates can be found on topographic maps prepared and supplied by the United States Geological Service (USGS). The USGS website is was follows:

http://www.usgs.gov

USGS maps can be purchased from dealers. The following is the USGS list of California dealers:

http://mapping.usgs.gov/esic/map_dealers/ca.html

## Maps on the Web

Topographic maps can be found on the following websites:

http://mapping.usgs.gov/partners/viewonline.html

The District uses the following website to find UTM Coordinates:

http://terraserver.homeadvisor.msn.com/default.asp

The following are the steps taken to locate a given facility is as follows:

1. In the window below the words “Find a specific place” enter the name of your location and click on “*go*”. Example enter ‘Victorville, CA’

2. If “Find Results” gives more that one map to choose from pick the appropriate map. Choose either “Aerial Photography” or “Topo Map”. (Note in most cases the “Aerial Photography” is newer than the “Topo Map”. However, it maybe easier to locate site on “Topo Map” and then switch to “Aerial Photography” by clicking on “Image” under “Style”.)

3. Use ‘arrows’ on the outside of the ‘image’ to place the desired facility onto the screen.

4. To center the desired point click on the point desired.

5. To change the size of image click on “Image Size”. The three choices are ‘small’, ‘medium’ and ‘large’.

6. If image is too large for the screen use either or both of the vertical and/or horizontal bars and/or side and bottom arrows to move around the ‘image’.

7. To zoom in either click on desired feature or on the ‘+’ sign located at the top left edge of the image. Zoom in as close as possible.

8. To add the UTM Grids click on the words “Image Info” located in the upper left corner of the screen. The UTM grids will be on 200 meters spacing, when Item # 7 is at maximum magnification. CEIDARS-Lite ask for facility UTM Coordinates in tenth (xxx.x) of Kilometers and stack UTM Coordinates in thousandths (xxx.xxx) of a Kilometer. Therefore, divide meters by 1,000 to obtain Kilometers.

The example “Digital OrthoPhoto Quadrangle (DOQ) Image” was printed on 11x17 paper. The coordinates for the two (2) points were determined on the 11x17 printout. The distance between the grids was about 5.3 millimeters. The coordinates of each point is as follows:

Intersection of I-15 & 7$^{th}$ Street

East Coordinate
470.200 + 4.2/5.3 * 0.2 = 470.359E
North Coordinate
3818.400 + 2.7/5.3 * 0.2 = 3818.502N

Intersection of 7$^{th}$ Street & Greentree Blvd

East Coordinate
470.600 + 0.0/5.3 * 0.2 = 470.600E
North Coordinate
3818.600 + 0.8/5.3 * 0.2 = 3818.630N

# Appendix "H" – SIC & SCC

## SIC – Standard Industrial Classification

The 'Standard Industrial Classification' (SIC) system was developed by the U.S. Department of Labor. The Department of Labor keeps the SICs in both hard copy and on the web. The web address is as follows:

http://www.osha.gov/oshstats/sicser.html

To assist facilities in determining the Facility and Process SIC the District had prepared Form 'SIC, see Appendix "A". Form 'SIC' provides two methods for determining the SIC Code. Use only one of these two methods. Method I requires the use of the Internet, see page H-2. Method II allows the facility to determine the first 2-digits of their 4-digit code. To determine the first 2-digits a facility must determine its "Division" (a letter between 'A' and 'J') and "Major Group" see pages H-3 through H-4. Next the facility must prepare a written description that details the major activity or activities at its location. The District will use the 'Division', 'Major Group' and detail description to determine the last 2-digits of the 4-digit SIC Code.

The Facility SIC and SIC for each process may be different. The Facility SIC should be for the major operation of the facility and the Process SIC should match the process. An example is a military facility where the Facility SIC is 9711, 'National Security' and the Process SIC for emission units at the hospital would be 8062, 'General Medical and Surgical Hospital'.

## SCC – Source Classification Code

The U.S. Environmental Protection Agency (USEPA) developed the Source Classification Code (SCC) system. The SCC is an eight-digit code. An eight-digit code may correspond to a particular boiler type, process heater, process vent, or fuel. A single emission point may have two or more SCCs if it uses more than one material or burns more than one type of fuel, but one SCC will describe most emission points.

The files that contain the SCC can be downloaded at the following website, see page H-5:

http://www.epa.gov/ttn/chief/codes/index.html#scc

The best format for searching for a SIC are either the Microsoft Excel Files or Microsoft Access Files. Also, download the 'SCC Readme' file. The Microsoft Excel Files and Microsoft Access Files are ZIP flies and will have to be UNZIPPED. Because of the way the USEPA describes a process it may take several searches to find the correct SCC. Make sure the units listed in the column entitled 'MEASURE' are the same units that are being used when reporting 'Process Rate (SCC Units/Yr)'. The best columns to search in are entitled 'SCC1_DESC', 'SCC3_DESC', 'SCC6_DESC', 'SCC8_DESC', and/or 'MATERIAL'.

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# Appendix "I" – Number of Employees

The total number of employees is the number of full time employees plus the number of part time employees (PTE) converted to equivalent full time employees. To convert part time employees into equivalent full time employees, divide the number of hours worked by part time employees by 2000. The equation is as follows:

NE = FTE + (PTHW / 2000)

NE = Total Number of Employees

FTE = Number of Employees that work more than 2,000 hours per calendar year

PTHW = Total Number of Hours Worked by Part Time Employees in a calendar year

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# Appendix "J" – CEIDARS-Lite Instructions

## DOWNLOAD

CEIDARS-Lite can be downloaded from the California Air Resources Board (CARB) website. The Internet address for this web page is as follows:

http://www.arb.ca.gov/ab2588/harp/harp.htm

This web page contains the download and installation instructions. It is advised that you print a copy of this web page.

When downloading CEIDARS-Lite you must download either item #1 and #3 or item #2 and #3. Item #1 is the complete program and is 19.515 MB in size. If you have a problem downloading Item #1 then download Item #2. Item #2 consist of fourteen (14) files that contain the complete program. Each of the 14 files will fit on a 1.44-Mb disk. Item #3 contains the changes that have been made to the program. Install either Item 1 or 2, then open HARP and click on "Utilities", "Update Fix Tables", and "Open". Data in Item #3 will update the fixed tables installed by either Item #1 or Item #2.

The detailed "Users Manual" (714-Kb) can be downloaded from this web page.

## DISTRICT INSTRUCTION MANUAL

The District has prepared a shorter 'point and click' document entitled "CEIDARS-Lite Instructions". This document is available upon request.

## CEIDARS-Lite FLOW DIAGRAM

CEIDARS-Lite requires one 'Facility Record' for each facility. One 'Device Record' for each emission source or release point. There can be one to 99 'Process Records' for each 'Device Record'. There can be one to 753 'Emission Record' for each 'Process Record'. There should be one 'Stack Record' for each stack. Each stack should be linked to a 'Process Record'. 'Stack Records' are optional. See page"J-2" for a flow diagram.

## IMPORTING DATA INTO CEIDARS-Lite

For instruction on how to 'Import' District provided emission data see pages "J-3" through "J-4".

## EXPORTING DATA FROM CEIDARS-Lite

For instruction on to 'Export' data to the District see pages "J-5" through "J-8".

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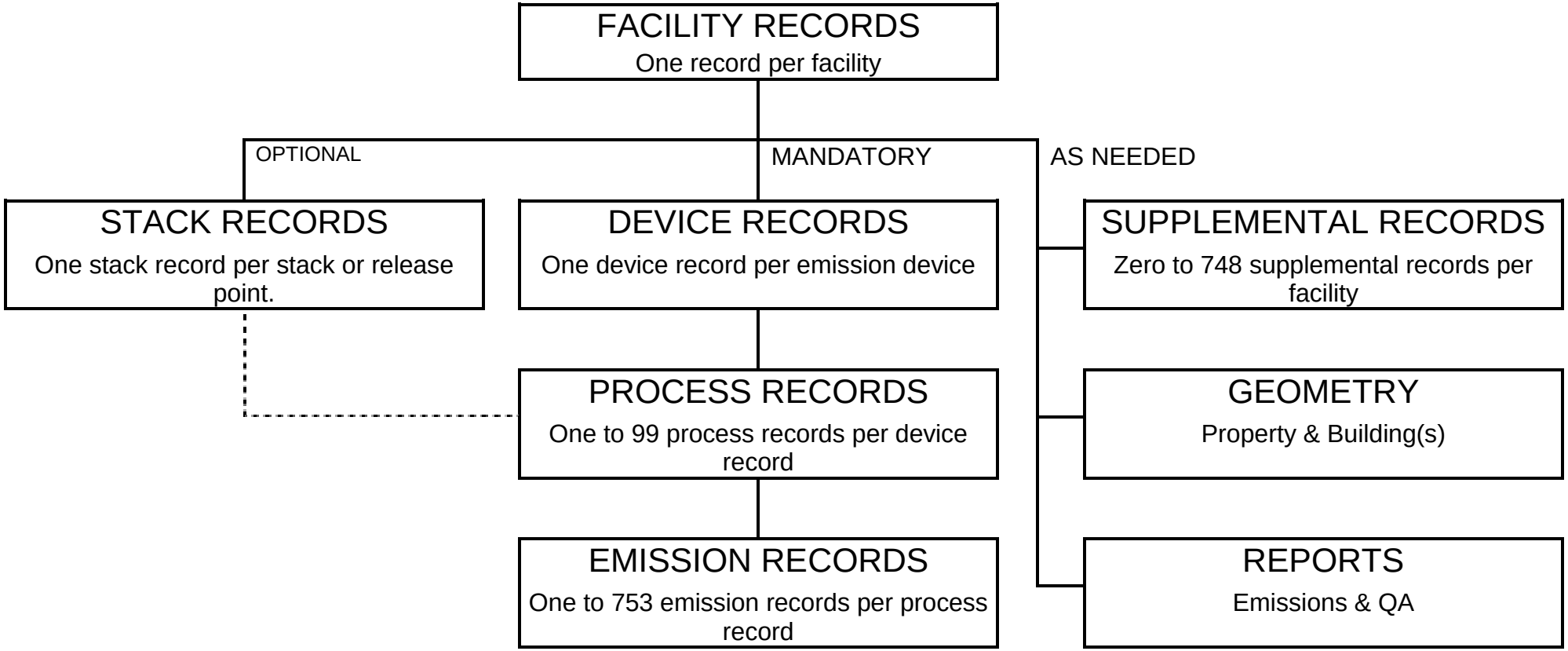
# CEIDARS FLOW DIAGRAM



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# *IMPORTING DATA*

| SCREEN | ACTION |
|---|---|
| HARP/MAIN | Insert the data Disk into the "A" Drive<br>Click on "Transactions"<br>Click on "Import" |
| Import Changes | Click on "Import Data"<br>If no data Disk in the "A" Drive click on "Cancel" on then click on the drive where the data to be imported is located. |
| Open | Click on button with "up arrow" until desired folder or drive appears in the large window.<br><br>Click on desired folder or drive and then click "Open". The small window after "Look in:" should now contain the folder or drive name.<br><br>Click on "file name" or "folder" that contains the desired inventory file. The small window after "Look in:" should now contain the name of the folder where the file to be imported is located.<br><br>Click on "file name" of the file to be imported into HARP (CEIDARS-Lite).<br><br>In small window after "File name:" could contain the name for the file to be imported.<br><br>Click on "Open" button |
| HARP | Answer "Yes" to question if the question contains the correct "file name" and database for year "20xx". |

| | |
|---|---|
| Import Changes | Messages will appear near the bottom starting with either the phrase "Reading transaction type •••••", "Validating ••••" or "Updating table •••••" |
| | When import is completed, the message at the bottom should read "Import Completed Successful". |
| | Click on "Exit" to return to "HARP/MAIN" screen |
| HARP/MAIN | To exit or revise the imported data click on "Edit Data". |
| | To prepare reports click on "Reports". |

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# HOW TO FIND IMPORTED DATA

| | |
|---|---|
| HARP/MAIN | Click on "Edit Data". |
| | Click on "Facilities and Emission". |
| Facility Data | Facility name should appear in small window to the right of "Facility". If not, from Task Bar click on "List". Your facility name should appear in the column entitled "Facility". |
| Facilities | Click on your facility name. |
| | Click on "OK". |
| Facility Data | Facility name should appear in small window to the right of "Facility". |

# ***EXPORTING DATA***

| **SCREEN** | **ACTION** |
|---|---|
| HARP/MAIN | Click on "Transactions"<br>Click on "Export" |
| Export Changes | Click circle, (which will place a dot in the circle) located before the words "User Defined Facility List" |
| | Click button entitled "List Files" |
| List Editor | Delete all facilities in window entitled "List" |
| | From "Available records" highlight facility to be exported by placing pointer in box to the left of the column entitled "facid" and then click left mouse button |
| | Click on "Insert" |
| | Repeat previous two steps until all facilities to be exported appear in "List" |
| | Click on "Exit" |
| HARP | Answer question with "Yes" |
| Export Changes | In Task Bar Click on "Export" |
| Export to file | Click on button with "up arrow" until desired folder or drive appears in large window. |
| | If exporting to an external disk insert the external disk into the appropriate drive, normally the "A" Drive. |

| | |
|---|---|
| | Click on desired folder or drive. The small window after "Save in:" should now contain the folder or drive name.<br><br>Click on "folder" were the data is to be exported to. The small window after "Save in:" should now read "folder name".<br><br>In the small window located to the right of "File name:" type in a name of the file or files being exported.<br><br>Click on "Save" button |
| Export Changes | Messages will appear near the bottom starting with the word "Exporting…"<br><br>When export is completed the message at the bottom should read "Exported *{number}* facilities to the *{drive}:\{folder name}\{file name}.chg"*<br><br>Click on "Exit" to return to "HARP/MAIN" screen |
| HARP/MAIN | |

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## HOW TO CHECK ON EXPORT DATA

| | |
|---|---|
| DESK TOP | Double Click on "EXPLORE" |
| Exploring | Click on drive and/or folder until desired folder is hi-lighted<br><br>Double click to open the desired file. |

The inventory file will open in Excel. Each of the lines should begin with one of the following:

"FAC", ---- one line for each facility
"DEV", ---- one line for each device
"PRO", ---- one line for each process
"EMS", ---- one line for each substance emitted for each process
"STK", ---- one line for each stack.

The following is an example of how each line of a facility report should begin and end:

"FAC",36,12,"SED","MOJ","C","MDAQMD TEST #1","15428 CIVIC DRIVE, ****** ,"RICHARD,"A","","","","","","","","rtw",19980319,
"DEV",36,12,"SED","MOJ","C",79099,"SPRAY BOOTH","S009099",1,"1","",,,,"",,,"",,"","","","rtw",19980319,
"DEV",36,12,"SED","MOJ","C",29090,"SAND BLASTING","A009090",1,"2","",,,,"",,,"",,"","","","rtw",19980319,
"PRO",36,12,"SED","MOJ","C",79099,1,"PAINT SPRAY BOOTH",40200110,9411,12589, ***** ,8.33,8.33,8.33,"","","rtw",19980319,
"PRO",36,12,"SED","MOJ","C",79099,2,"DRYING OVEN",39000689,9411,225, *****,8.33,8.33,8.33,8.33,8.33,"","","rtw",19980319,
"PRO",36,12,"SED","MOJ","C",29090,1,"SAND BLASTING",30900202,9411,155, ***** ,8.33,8.33,8.33,8.33,"","","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",79099,1,43101,3.75,,,,3.75,,,0.95,0.92,23.6,,8,5,,,,"","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",79099,2,11101,3,,,,3,,,1,1,0.3375,,6,5,,,,"","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",79099,2,42603,100,,,,100,,,,,11.25,,6,5,,,,"","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",79099,2,42101,28,,,,28,,,,,3.15,,6,5,,,,"","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",79099,2,43101,43,,,,43,,,0.75,0.6,4.84,,6,5,,,,"","rtw",19980319,
"EMS",36,12,"SED","MOJ","C",29090,1,11101,0.4,,,,0.4,,,0.7,0.65,0.031,,6,5,,,,"","rtw",19980319,
"STK",36,12,"SED","MOJ","C",9099,1,,,25,3,,50000,7073.553,"rtw",19980319,
"STK",36,12,"SED","MOJ","C",9090,2,,,35,1.25,80,15000,12223.1,"rtw",19980319,

********* Multiple data fields were removed. The best way check the data is to look at the beginning and end of each line

# Appendix "K" - Quality Assurance

The District and CARB uses the Quality Assurance Reports to check the database for consistency and completeness of the data. There are eight quality assurance reports. Click on the desired report or reports you want. Missing, inconsistent, and uncompleted data will be flagged. If all the data for a given report passes all the checks the report will be blank. The goal is to have all reports blank. However, this is not possible for all situations because of the limitations of the program. When this occurs, a note explaining why the flag still exist should be placed on the report. Submit final Quality Assurance Reports as either a file(s) on the inventory disk or in hardcopy form.

The number or numbers at the right end of each line of flagged data identifies the reason for being flagged. The explanation for each number can be found in the upper left of the report.

The eight reports and their function are as follows:

| | | |
|---|---|---|
| 1. | Facility without emissions | The database does not have any 'Emission Records' for the listed 'Facility Record'. |
| 2. | Stacks without emissions | The database does not have any 'Emission Records' for the listed 'Stack records'. Each 'Stack Record' should be linked to a 'Process Record'. |
| 3. | Devices without emissions | The database does not have any 'Emission Records' for the listed 'Device Records'. |
| 4. | Processes without emissions | The database does not have any 'Emission Records' for the listed 'Process Records'. |
| 5. | Stacks without processes | The database does not have any 'Process Records' for the listed 'Stack Records'. |

6. Emission Data Q/A

This Q/A report checks the 'Emission Records' for the following five items:

A. Control efficiencies that are too high
B. Process rate but hours of operation is zero (or vice versa)
C. Annual emissions equal zero (0) and process rate is not equal to (or vice versa)
D. Calculated emission not equal to reported (inputted) annual emission
E. SCC has been deleted by EPA.

7. Stack Data Q/A

This Q/A report checks the "Stack Records' for the following nine items:

A. UTM Coordinates are incomplete for the stack and/or facility
B. UTM Coordinates are out of expected range
C. Stack height is too tall or short
D. Stack diameter is too large or small
E. Stack diameter exceeds 0.4 times the stack height
F. Stack gas velocity is too slow or fast
G. Stack temperatures are out of expected range
H. Calculated stack flow rate is not equal to reported (inputted) flow rate
I. Stack is not attached (linked) to any 'Process Record'

8. Process and Temporal Data Q/A

This Q/A report checks the 'Process Records' for the following 8 items:

A. UTM Coordinates for the facility are incomplete or out of range
B. Annual process rate is blank or zero
C. Maximum hourly process rate is blank or zero
D. Hours per day may be invalid
E. Days per week may be invalid
F. Weeks per year may be invalid
G. Maximum hourly process rate is inconsistent with operating cycle
H. Monthly throughput is incorrect or missing.